ACOUSTIC SOURCE LOCALIZATION SYSTEM AND METHOD

ABSTRACT OF THE DISCLOSURE

An acoustic source location technique compares the time response of signals from two or more pairs of microphones. For each pair of microphones, a plurality of sample elements are calculated that correspond to a ranking of possible time delay offsets for the two acoustic signals received by the pair of microphones, with each sample element having a delay time and a sample value. Each sample element is mapped to a sub-surface of potential acoustic source locations and assigned the sample value. A weighted value is calculated on each cell of a common boundary surface by combining the values of the plurality of sub-surfaces proximate the cell to form a weighted surface with the weighted value assigned to each cell interpreted as being indicative that a bearing vector to the acoustic source passes through the cell.